

- 17 -

CLAIMS:

1. A loudspeaker system comprising:
a first speaker assembly;
a second speaker assembly; and a
5 a coupling means for providing a mechanical and electrical interconnection between the first speaker assembly and the second speaker assembly, the coupling means being adapted to interchangably connect the first speaker assembly to a different second speaker assembly having different audio response characteristics from the first-mentioned second speaker
10 assembly;
wherein the first speaker assembly includes an equalization circuit for providing a signal to the second speaker assembly, the equalization circuit having an output for connection to the second speaker assembly through the coupling means, wherein the equalization circuit is switchable to
15 provide different outputs, each corresponding to the characteristics of a respective second speaker assembly.
2. A loudspeaker system as claimed in claim 1, wherein the first speaker assembly includes at least one first loudspeaker and a first amplifier therefor, and wherein the second speaker assembly includes at least one
20 second loudspeaker.
3. A loudspeaker system as claimed in claim 2, wherein the first speaker assembly includes a speaker adapted to cover a low range of frequencies, and the second speaker assembly is adapted to cover a higher frequency range.
- 25 4. A loudspeaker system as claimed in claim 3, wherein the coupling means provides a pair of electrical connections between the first and second speaker assemblies, for an audio signal from the first speaker assembly to the second speaker assembly, for driving the second speaker assembly.
5. A loudspeaker system as claimed in claim 4, wherein the electrical

- 18 -

connections of the coupling means includes mechanical connections between the first and second speaker assemblies integral therewith.

6. A loudspeaker system as claimed in claim 5, wherein the coupling means comprises two pairs of first and second coupling elements, with the first
5 coupling elements being secured to the first speaker subassembly and the second coupling elements being secured to the second speaker subassembly, the coupling elements being complementary and engagable with one another to provide a mechanical connection and being conductive to form pairs of electrical connections.
- 10 7. A loudspeaker system as claimed claim 3, wherein the equalization circuit comprises an amplification and equalization circuit, for providing a drive signal to the low frequency speaker and including switch means enabling at least one of, the upper end of the low pass frequency range, and the phase to be adjusted.
- 15 8. A loudspeaker system as claimed in claim 7, wherein the amplification and equalization circuit includes a switch means for switching between at least one fixed filter mode, providing set parameters corresponding to a known second loudspeaker assembly, and a manual mode in which the amplification and equalization circuit can be manually adjusted.
- 20 9. A loudspeaker system as claimed in claim 8, wherein the amplification and equalization circuit comprises an amplification circuit and a separate equalization circuit.
10. A loudspeaker system as claimed in claim 9, wherein the equalization circuit includes an output section having parameters relating to a
25 desired loudspeaker response and the response characteristics of the low frequency speaker, at least one additional section having parameters corresponding to a desired target response and parameters of a known second speaker system, thereby to give accurate compatibility between the first and second loudspeaker systems.

- 19 -

11. A loudspeaker system comprising:
a first speaker assembly;
a second speaker assembly;
a connection means providing at least one of a mechanical
5 connection and an electrical connection between the first and second speaker
assemblies; and
an equalization circuit in the first speaker assembly including at
least two separate sections for adjusting the frequency response to match
different second speaker assemblies; and switch means for switching between
10 the different sections of the equalization circuit.
12. A loudspeaker system as claimed in claim 11, wherein the
equalization circuit includes at least one section with fixed parameters and at
least one section including manual control of at least one of low pass frequency
range, phase shift and amplitude level.
- 15 13. A loudspeaker system as claimed in claim 12, wherein the
equalization circuit includes subtraction filters.
14. A loudspeaker system as claimed in claim 13, wherein the first
loudspeaker assembly includes an amplifier connected to an output of the
equalization circuit, and a low frequency speaker connected to and driven by
20 the amplifier.
15. A method of selecting and assembling a loudspeaker assembly,
the method comprising the steps of:
(1) providing three or more first and second speaker
assemblies, each first speaker assembly comprising a low frequency speaker
25 and an amplifier for driving the low frequency speaker, and each second
loudspeaker assembly comprising at least one passive speaker, and there being
at least one first speaker assembly and at least one second speaker assembly;
(2) providing coupling means on the first and second speaker
assemblies, enabling each first speaker assembly to be coupled to each second

- 20 -

speaker assembly;

(3) permitting an end user to select a desired pair of a first speaker assembly and a second speaker assembly;

(4) coupling together the selected pair of first and second
5 speaker assemblies.

16. A method as claimed in claim 15, which additionally includes providing an equalization circuit in the first speaker assembly, the equalization circuit including a plurality of filter sections corresponding to different second speaker assemblies and a selection switch, and the method further comprising
10 actuating the selection switch to select a filter section corresponding to the selected second loudspeaker assembly, thereby to provide accurate matching between the response characteristics of the first and second loudspeaker assemblies.